

Rosemont Copper Project -EPA Region 9 Update for Assistant Administrators

In 2012, EPA rated the Forest Service's DEIS "EU-3" and designated the 404 permit as a candidate for Headquarters review. Our DEIS rating was based upon impacts to air quality, water quality, wetlands and the aquatic environment, endangered species, the project's ability to comply with statutory requirements, and tribal resource concerns. The Forest Service declined to prepare a revised or supplemental draft EIS, instead publishing a Final EIS in December 2013. The FEIS addressed some of EPA's concerns by modifying the project design and mitigation; however, those changes did not address the most severe impacts of the project, particularly the direct and secondary impacts to aquatic resources from discharges of dredged or fill material under the 404 permit.

Critical Issues Relating to Clean Water Act Section 404 compliance:

Water Quality

- EPA has determined that the mine runoff contaminated with heavy metals (*e.g.*, mercury, lead, selenium, silver) will lower existing water quality in Davidson Canyon and Cienega Creek ONRWs (Tier 3) in violation of State Water Quality Standards.
- Changes in hydrogeomorphology from the mine will degrade water quality in the ONRWs by increasing suspended sediment and temperature, and lowering dissolved oxygen.
- ADEQ's CWA §401 certification lacks preventative actions to safeguard water quality in the Cienega Creek watershed. The state has limited authority to include the full scope of water quality impacts in their certification, and Region 9 has invoked 33 CFR 320.4(d) ("other water quality aspects") to ensure water quality impacts are fully considered in federal decision-making.

Significant Degradation of WOTUS

- The 5,000-acre mine will fill 40 acres of WOTUS, and divert stormwater from an additional 28 acres of waters. These impacts will adversely affect 10 endangered species, destroy critical bird overwintering areas and fragment critical animal migration corridors.
- The mine will significantly degrade downstream water quality in a watershed where zero degradation is allowable.
- The project will reduce water availability for existing designated uses in agriculture and municipal and private supply, and very likely impair its quality.
- The discharge of fill material will modify the aesthetic, educational, historical, recreational and scientific qualities of national forest lands and adjacent national and regional wildlife preserves.

Mitigation

- Hudbay's 404 mitigation plan results in a net loss of WOTUS and does not comply with the substantive criteria of the 2008 Corps-EPA Mitigation Rule.
- Scientifically, Hudbay's 404 mitigation proposals do not overcome facts underpinning the significant degradation finding. The proposed mitigation is not commensurate with the scale of the mine's impacts.
- Most of the proposed 404 mitigation is preservation of lands not under any demonstrable threat, and that available evidence suggests are functioning well as they are.

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- The portion of the 404 mitigation related to the establishment of replacement WOTUS (Sonoita Creek Ranch) has been studied by EPA contractors and found to have high risk and uncertainty of ecological performance.
- Most of the land proposed for preservation is out of the impacted watershed (Cienega Creek).
- The mitigation plan fails to demonstrate how proposed "enhancement/rehabilitation" activities on preserved parcels are compensatory.

Public Interest

- Tier 3 antidegradation standards will be violated. Mitigation measures will not maintain and protect existing water quality in the ONRWs.
- The Rosemont Mine will create a new demand (6-7% increase) on water supply in the Tucson Active Management Area; an aquifer already being overdrafted.
- Groundwater pumping will adversely impact over 800 public and private water supply wells.
- The Rosemont Mine will cause the loss of recreational and aesthetic value in the Cienega Creek watershed.
- Numerous local agencies, organizations, and tribal governments have expressed opposition to the mine (including Pima County and the Tohono O'odham tribe).

Additional Critical Issues:

Groundwater extraction could alter environment on a watershed-scale

- 3000 feet deep pit would draw down groundwater levels by over a half mile and reduce groundwater contributions to sensitive aquatic habitats in Las Cienegas National Conservation Area and the Cienega Creek Natural Preserve.
- Permanent loss of flow to seasonal and perennial streams and wetlands, with associated impacts to endangered aquatic habitat dependent plants, fish and wildlife, including the only known jaguar in North America.
- EPA believes that the loss of jurisdictional surface waters as a result of groundwater drawdown are a secondary impact of the CWA Section 404 action. Although the Corps has covered these impacts in analogous situations elsewhere in the country (including in Arizona), the Corps presently does not agree with EPA's position on this matter for Rosemont Mine.

Rosemont mine would irreversibly degrade lands designated for conservation.

- The aquatic resources at risk from the mine project are of local, regional, national, and international significance

Exceedance of air emissions thresholds

- Exceedance of thresholds for degradation of regional visibility and airborne deposition of nitrogen in Saguaro National Park and other Class 1 areas.

Extreme Impacts to tribal cultural resources

- The proposed project and its alternatives *would have severe, irretrievable and largely unmitigated impacts upon tribal and cultural resources;* in particular those of the Tohono O'odham Nation.

Impacts to some of the best remaining habitat for 10 T&E species

- Some of the best remaining habitat in the American Southwest for 10 listed mammals, fish, amphibians, and plants will be destroyed or adversely affected from the groundwater-related impacts of the mine project

Status of Rosemont Mitigation Proposals*

Based on Hudbay's latest mitigation proposal, *Rosemont Copper Project -Habitat Mitigation and Monitoring Plan dated September 26, 2014.*

| Site | Overall Acres | WOTUS Acres | Proposed Mitigation | WOTUS gain/loss | Adequacy of Mitigation |
|--|---------------|-------------|--|-----------------|---|
| Rosemont | 4800 | 101 | Eliminate WOTUS for mine pit and tailings | -68 | 40 ac fill +28 "secondary" impact of surface diversions. New hydro analysis shows secondary impacts underestimated. |
| Sonoita Creek Ranch | 1580 | 104 | Construct new WOTUS, preserve and enhance existing with livestock fencing. | +52 | <ul style="list-style-type: none"> • Out of watershed. • EPA's contractors found high risk of failure, and result in net decrease of function of Sonoita Creek. • No success metrics for purported enhancement via livestock exclusion. • Existing easements conflict with mitigation objectives. |
| Helvetia | 939 | 39 | Preservation. Livestock exclusion fencing, fixing ranch roads or upland gullies. | | <ul style="list-style-type: none"> • Out of watershed, west of Santa Rita Mts. • No assessment demonstrating activities will improve waters, including riparian buffers seeking to offset lost WOTUS |
| Fullerton | 1763 | 50 | Preservation. Livestock exclusion fencing, fixing ranch roads or upland gullies and remove horse corral. | 0 | <ul style="list-style-type: none"> • Mineral Rights not included, leaving site vulnerable. |
| Davidson Canyon Parcels | 545 | 16 | Preservation only. | 0 | <ul style="list-style-type: none"> • Parcels are within groundwater drawdown impact zone. • No demonstrated preservation need/development threat. • All Mineral Rights not owned by Rosemont. |
| Pantano Dam "In-Lieu Fee" | 2 | 1 | Enhancement of uplands and existing waters. | 0 | <ul style="list-style-type: none"> • Mitigation rejected by the Corps. • No approved ILF Program • Infeasible due to hydrogeology of site. |
| Other proposed mitigation activities | | | | | |
| Water Rights Sever and Transfer: 1,122 AFA at Pantano, and 590 AFA at Sonoita Creek Ranch | | | <ul style="list-style-type: none"> • Actual recorded yield is 360 AFA at Pantano, and trending lower (drought and climate change). Even at full theoretical yield, release below Pantano Dam won't offset 14 miles of dewatered streams above the dam. For Sonoita, Rosemont has not verified volumes, but historical documents suggest less water available. | | |
| 923 Acres of Upland Riparian Buffer: Livestock exclusion fencing at preservation parcels above | | | <ul style="list-style-type: none"> • Upland buffer habitat already proposed for preservation at each site identified above. • Requests buffer credit to offset impacts to waters yet the in-kind direct and secondary impact of buffer habitat at mine site is not being compensated. | | |

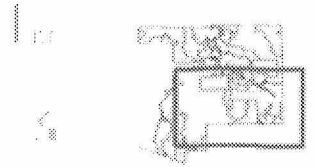
**Note: None of the above mitigation activities are designed to address the surface water impacts from groundwater drawdown. To EPA's knowledge, no agency is attempting to do so.*



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Proposed Rosemont Mine Project Features

Pima County Index Map



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Rosemont Fee Land

Major Stream or Wash

Pima County Preserve Land

Incorporated Area

Federal Preserve Land

Tribal Land

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